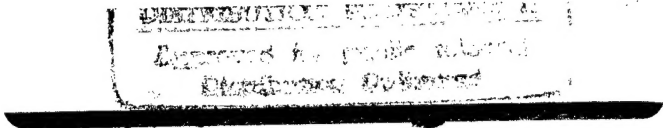


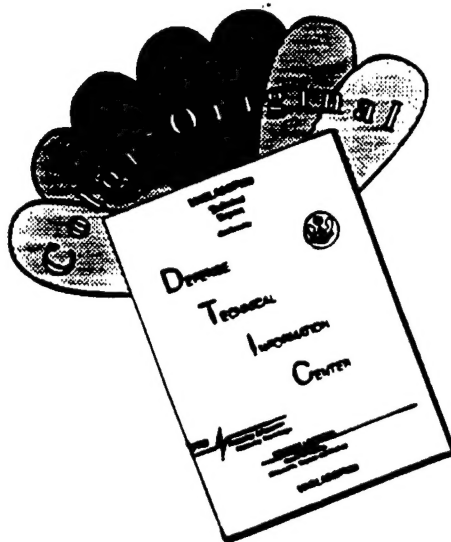
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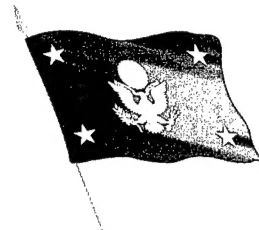
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DEPARTMENT OF THE ARMY  
WASHINGTON, DC



America's Army is meeting formidable challenges as we transition to a leaner, CONUS-based Force Projection Army. We are changing intellectually and physically, and growing to accommodate the demands of a dynamic strategic landscape, while remaining faithful to our institution's foundations. Not only are we changing...we are changing the way we change. That is what *Louisiana Maneuvers* is all about.

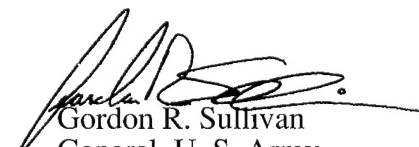
How does an Army change in profound ways, yet retain its fighting edge? How do we get smaller, yet grow more capable? How do we prepare for the 21st Century? Our Nation's past experience indicates that when the threat is ill-defined and resources are scarce -- as is the case today -- the military decays. General George C. Marshall said it this way: "We have tried since the birth of our Nation to promote our love of peace by a display of weakness. This course has failed us utterly."

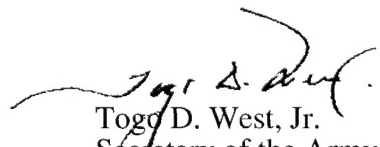


Through the *Louisiana Maneuvers* process, the Army senior leadership energizes and focuses the forces of change while simultaneously keeping the Army strong, trained, and ready. *Louisiana Maneuvers* enables us to balance the challenges of today with the requirement to think about and grow the Army into the 21st Century. It provides a structured forum for the Army's senior leadership to ask the right questions, identify and examine the most important issues, develop possible solutions and new ideas, and build consensus around them.

In an era of declining end strength, operational commitments are increasing. While the Army is smaller than at any time since 1939, we have over 127,000 soldiers forward stationed and another 20,000 deployed on operational commitments across the new strategic landscape. In the past, we have been unable to maintain the edge in an environment of declining resources. Today we are trained and ready and *Louisiana Maneuvers* provides us the tools to be trained and ready in the dynamic world of tomorrow. We are changing the way we change.

This document describes the *Louisiana Maneuvers* process and reports out on the Army's efforts to maintain and grow a trained and ready force, to reshape and resource the force, and to strengthen the team -- a team of Active, National Guard, and United States Army Reserve soldiers; civilian employees; our retired community; Army families; and our partners in industry. A similar document will follow detailing the promising advances that are being made through Battle Laboratories, our primary agent of change. These are exciting times!

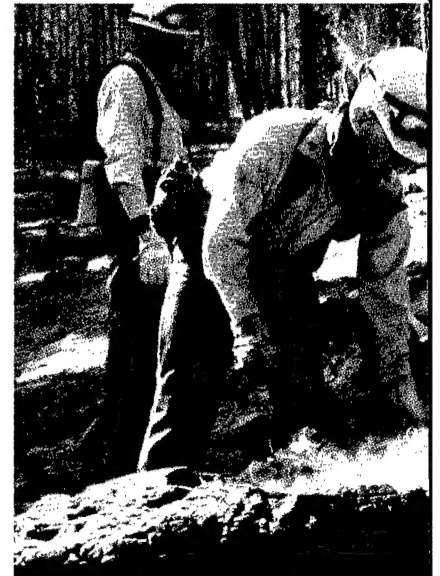
  
Gordon R. Sullivan  
General, U. S. Army  
Chief of Staff

  
Togo D. West, Jr.  
Secretary of the Army

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**AMERICA'S ARMY IS  
TRAINED AND READY TO  
FIGHT, SERVING THE  
NATION AT HOME AND  
ABROAD, A STRATEGIC  
FORCE CAPABLE OF  
DECISIVE VICTORY INTO  
THE 21ST CENTURY.**



*Continuity, Change, and Growth*



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# Introduction

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Since 1775, the Army has served the Nation...in peace and war, at home and abroad. From Bunker Hill to Antietam, from Normandy to the Persian Gulf, American soldiers fought and died when called to duty. Recent victories in the Cold War, Just Cause, and Desert Storm highlight the Army's role in support of U.S. foreign policy. Operations today -- nation assistance in Central and South America, protecting international relief efforts in Somalia, and providing medical care to peacekeepers in the former Yugoslavia -- are but a few examples that underscore the Army's role in a changing strategic landscape.

The Army has a deeply rooted tradition of service to the Nation that began with the colonial militia. In the past, the Army mapped the frontier as the nation grew, surveyed roads, accomplished massive river projects, assisted in the aftermath of earthquakes and fires, and protected settlers on the frontier. We continue that tradition today, as America's Army fights forest fires, provides hurricane relief, combats the flow of drugs, and provides role models for the Nation's youth. America's Army is in hometowns throughout America, every day, contributing people, equipment, expertise, and example.

America's Army is trained and ready to fight, serving the Nation at home and abroad, a strategic force capable of decisive victory into the 21st Century. We are ready today; we must be ready tomorrow and the day after tomorrow. President Clinton captured the essence of that future force in his speech to the United States Military Academy where he said: "Our military will be more mobile, agile, precise, flexible, smart, and especially ready."

This is an era of profound change. Declining resources for defense and increasingly demanding and complex military missions require fundamental changes in our military posture and the processes by which we raise, train, equip, deploy, and sustain our forces. As the Army leads change, we must adapt to the Nation's emerging priorities, consume less of the national budget, and at the same time, increase the capability and sustain the readiness of our forces. This apparent paradox is a fundamental reality of the world we face; to accomplish this we must change the way we change. That is the essence of Louisiana Maneuvers: Changing the way we change.



# The Strategic Landscape

The United States no longer faces a monolithic, well defined threat. Emerging regional threats are less ominous but more diverse, less predictable, and just as deadly as our Cold War adversaries. With only the ninth largest army in the world, the United States faces numerous very capable potential adversaries. We also face more primitive but equally challenging forces as advanced technology and weapons of mass destruction proliferate. While the Army's size and resources are declining, global commitments and threats are increasing. Many involve opera-

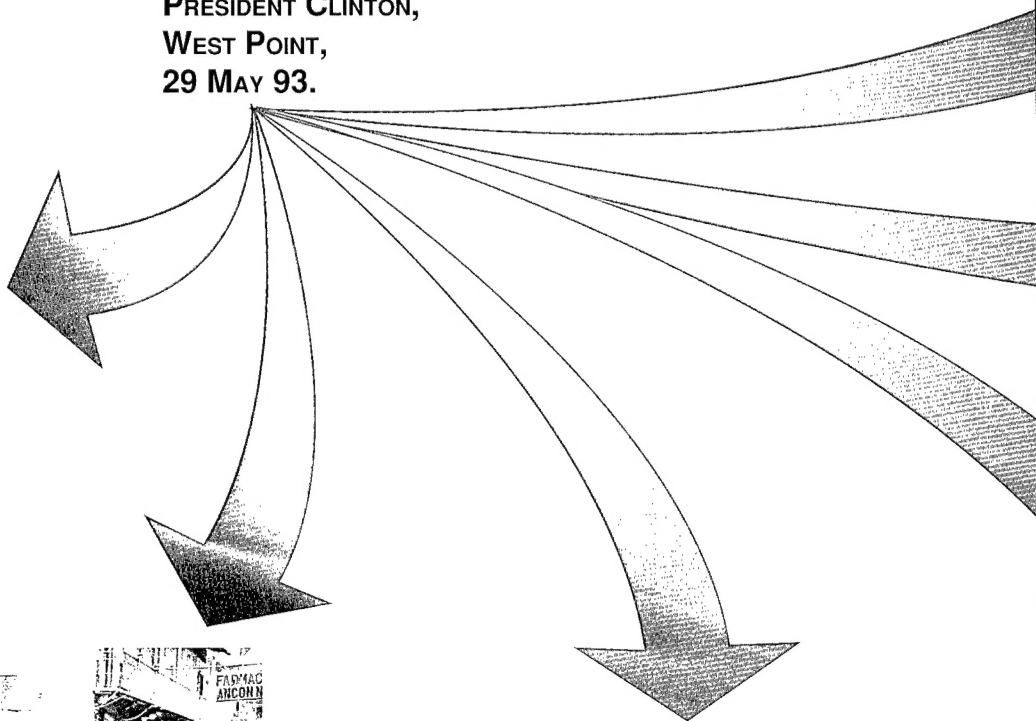
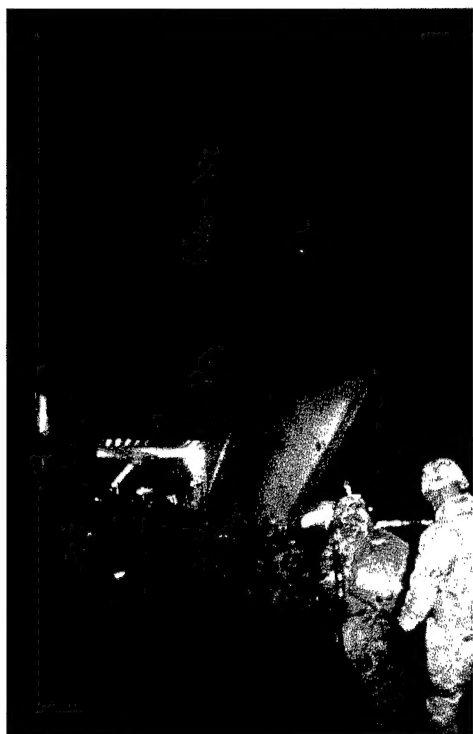
tions other than war: peacekeeping, peace enforcement, counter-drug operations, humanitarian assistance, and nation assistance. Today's realities bring a host of diverse missions to America's Army.

Our Army continues to serve at home. Domestic relief operations in the aftermath of hurricanes and floods, and fighting forest fires compete for scarce military resources. And as in the past, America's Army is judged by only one standard...decisive victory in whatever we are called upon to do.

---

**"YOU WILL BE CALLED UPON IN MANY WAYS IN THIS NEW ERA TO KEEP THE PEACE, TO RELIEVE SUFFERING, TO HELP TEACH OFFICERS FROM NEW DEMOCRACIES IN THE WAYS OF A DEMOCRATIC ARMY AND STILL...TO WIN OUR WARS."**

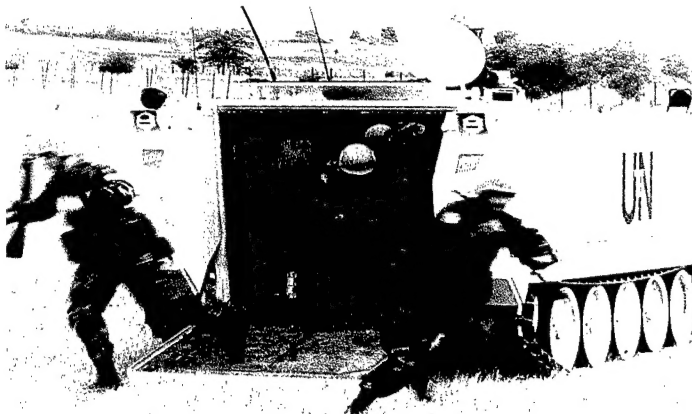
**PRESIDENT CLINTON,  
WEST POINT,  
29 MAY 93.**





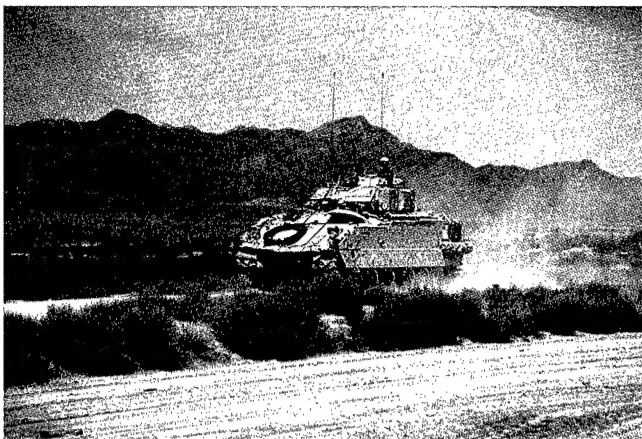
## ON A GIVEN DAY ...

- ✓ ... 20-25K SOLDIERS  
DEPLOYED
- ✓ ... IN 50-75 COUNTRIES
- ✓ ... MEETING OPERATIONAL  
COMMITMENTS
- ✓ ... 300% MORE THAN  
WHEN THE BERLIN  
WALL CAME DOWN



## FORWARD STATIONED

JAPAN	1 K
EUROPE	94 K
KOREA	27 K
LATIN AMERICA	5 K
	<hr/>
	127 K

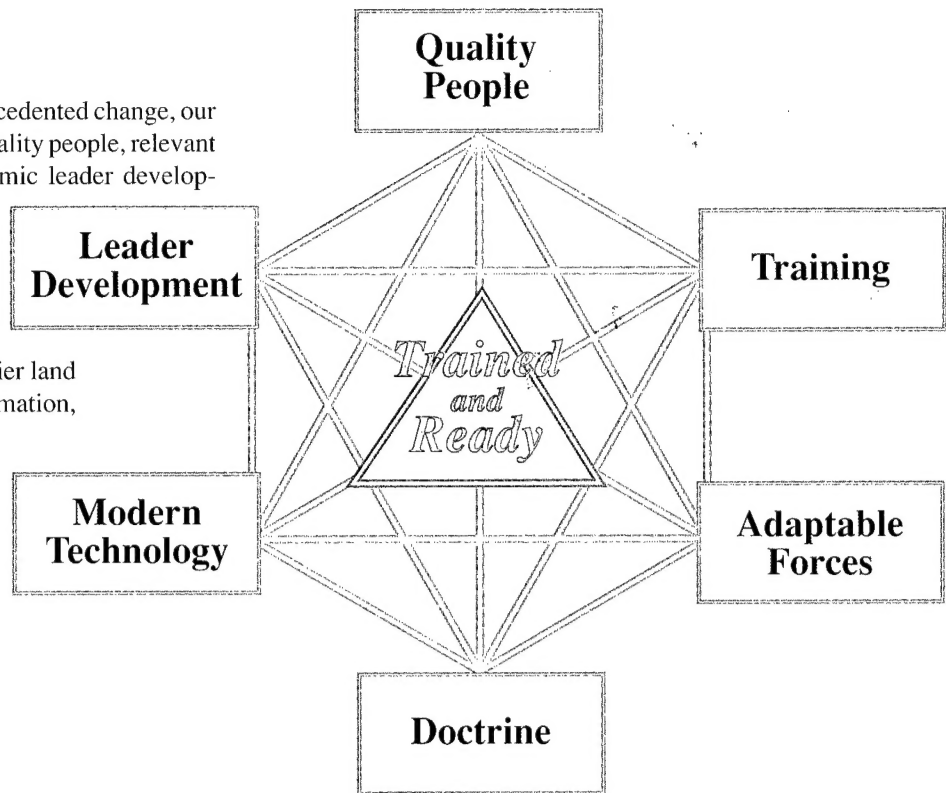


SINCE 1990, 47 MAJOR  
OPERATIONAL DEPLOYMENTS

OVER 50% INCREASE  
FROM COLD WAR

## Imperatives

During these times of unprecedented change, our critical institutional imperatives -- quality people, relevant doctrine, challenging training, dynamic leader development, modern technology, and the right forces -- are the tested and proven elements to create and sustain a trained and ready Army. Since 1975, these imperatives forged this Nation's Army into the world's premier land combat force, guiding our transformation, while keeping us trained and ready.



The Army has already accomplished enormous physical change. Since 1989, we have conducted highly successful operations and deployments across the new strategic landscape, including Panama, Kuwait, Somalia, and elsewhere. While doing so, we have --

- Released over 400,000 soldiers and civilian employees
- Reduced the Active Component from 18 to 13 divisions, while planning additional reductions
- Reduced the Army National Guard from 10 to 8 divisions, while planning additional reductions
- Accelerated troop withdrawals from Europe (145 battalion equivalents)
- Redeployed over 250,000 soldiers and family members from Europe
- Retrograded, redistributed, or disposed of over 50,000 vehicles and 533,400 tons of ammunition from Europe
- Reduced war reserve stockpiles from 19 to 5
- Removed Army tactical nuclear weapons from the force
- Closed 32 nuclear storage sites
- Closed 62 installations in the United States and 380 overseas
- Eliminated 62 Senior ROTC Programs
- Assigned 2,000 key Active Component leaders to assist early deploying Reserve Component units remain trained and ready



**"SMALLER IS NOT BETTER.  
BETTER IS BETTER."**

**GENERAL GORDON R. SULLIVAN.**

But getting smaller is not an accomplishment in itself. Staying trained and ready, stimulating intellectual change through our new doctrine, modernizing our equipment, and changing the way we do business while getting smaller are the Army's real accomplishments -- changing while guarding the institution's foundations and ethical base, and growing to accommodate the demands of an ever changing and challenging world.

The institutional organizations that provide the Army's sustainment base are reengineering for the 21st Century: Army Materiel Command, Health Services Command, Intelligence and Security Command, Information Systems Command, and the Army Staff. The reengineering of the Training and Doctrine Command (TRADOC) and the Corps of Engineers is underway. Reductions of 50% are not uncommon.

*Continuity, Change, and Growth*



**"THERE IS NOTHING MORE DIFFICULT TO TAKE IN HAND, MORE PERILOUS TO CONDUCT, OR MORE UNCERTAIN IN ITS SUCCESS THAN TO TAKE THE LEAD IN THE INTRODUCTION OF A NEW ORDER OF THINGS."**

**MACHIAVELLI**

**"ALMOST EVERYTHING WE KNOW IN THEORY ABOUT LARGE BUREAUCRACIES SUGGESTS NOT ONLY THEY ARE HARD TO CHANGE, BUT THEY ARE DESIGNED NOT TO CHANGE."**

**STEPHEN ROSEN**

**"NO PROBLEM CAN BE SOLVED FROM THE SAME CONSCIOUSNESS THAT CREATED IT. WE MUST LEARN TO SEE THE WORLD ANEW."**

**ALBERT EINSTEIN**

While changing intellectually, physically, and culturally is difficult, it is imperative if the Army is to serve the Nation in the 21st Century. How do we cause America's Army to adapt to profound change in a functional way while retaining or even growing its effectiveness? How do you transform a large, complex organization?

To prepare the Army for World War II, Army Chief of Staff General George C. Marshall launched a process to answer similar questions. The realities General Marshall faced in 1940 were --

- Imminent entry into World War II
- Rapid mobilization and growth resulting in a large and untested Army
- An untrained officer corps
- Difficulties with Congress and uncertain popular support

Marshall, with the help of General Leslie J. McNair, instituted a series of Army level maneuvers in Louisiana and the Carolinas to assess readiness and serve as a laboratory for examining issues. They used these "Louisiana Maneuvers" to test new warfighting concepts that had evolved since World War I, to assess their impact

on doctrine, plans, force structure, and to identify quality leaders for the road ahead. In short, with 400,000 soldiers in a field environment, they "test-fired" the Army against the known threat and the current state of blitzkrieg warfare. Based on observations from the Maneuvers, they made important changes in organizations, doctrine, equipment, and leadership. The Louisiana Maneuvers of the early-1940s allowed the Army's senior leadership to transform the Army and to achieve decisive victory in World War II.

What Generals Marshall and McNair accomplished with this process captured our imagination. Today, we use the intellectual underpinnings of their work to focus and prepare America's Army to serve the Nation at home and abroad, and into the 21st Century. We borrow from the spirit of change that Generals Marshall and McNair created by adopting their sobriquet: *Louisiana Maneuvers*.

From that antecedent, the purpose of today's Louisiana Maneuvers is to energize and focus the forces of change while simultaneously keeping the Army combat ready. Louisiana Maneuvers is a laboratory to practice roles and missions, to develop and explore options, and to assess and direct progress. It is a mechanism to harness the disparate energies of creativity and centralizes the innova-



tion process. It provides senior leaders strategic agility in decision making to guide the Army's transformation to a more modern and capable, CONUS-based, Force Projection Army. In short, we use Louisiana Maneuvers to make change a reality.

In the broadest sense, Louisiana Maneuvers does four things. First, it identifies the most important issues and questions a changing army needs to resolve. Second, it establishes the basis for reaching consensus among the senior leadership.

Third, using a wide range of investigative tools, it causes those Title 10, United States Code, and warfighting issues to be studied

under the direction of the senior leadership (our four-star generals). As the Army learns through these investigations, potential solutions develop that might include policy or force structure changes or improved weapons systems. Fourth, Louisiana Maneuvers provides accelerated feedback from the investigations to the Army's senior leadership providing strategic agility in decision making.

A small task force connects the Army Staff to the major Army commands and the unified commands. The task force coordinates these efforts to integrate lessons learned from exercises, ongoing operations, laboratory experiments, and simulations in a rational, structured way, and facilitates bringing new insights to the senior leadership for informed policy deliberations.

Many potential solutions involve resource decisions. As issues are debated and recommendations consid-

ered by the senior leadership, the consensus achieved makes it possible to move forward on difficult questions. This process complements rou-

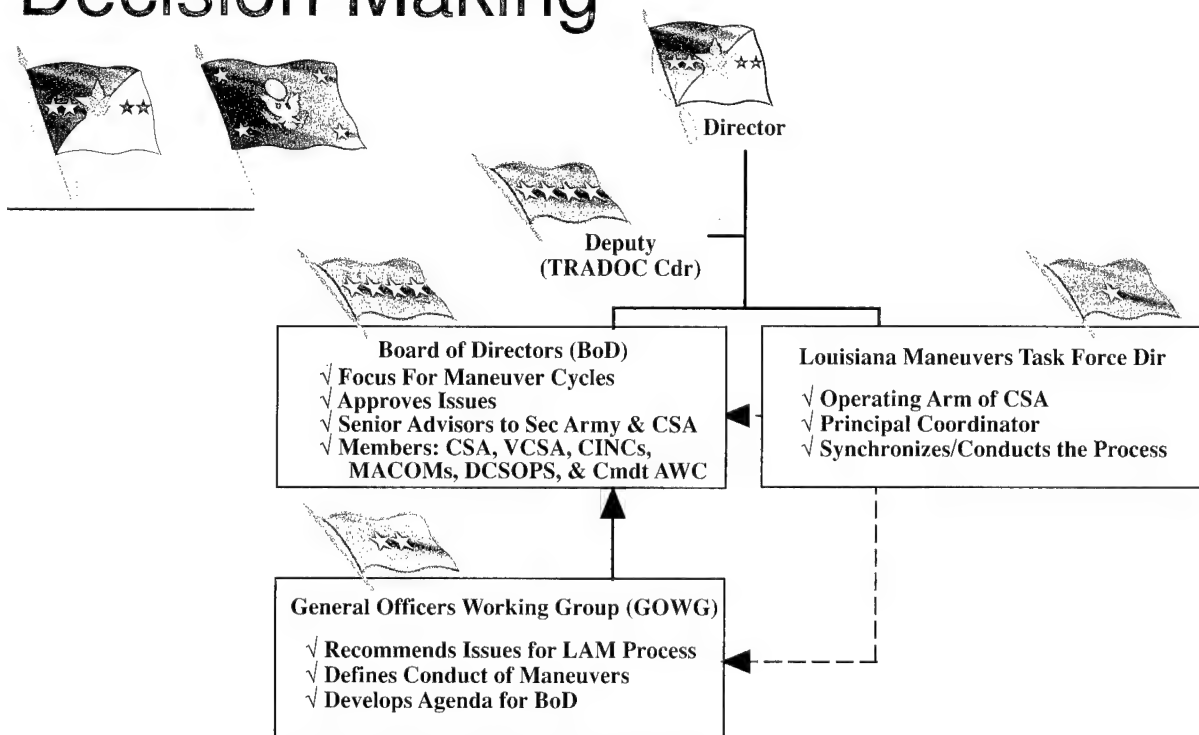
tine decision making methodologies and allows us to insert quick feedback into the President's budget and the Planning, Programming, and Budgeting System. Louisiana Maneuvers leverages the wisdom of the Army's senior leadership which produces strategic agility in decision making.

**"LAM WILL ENABLE THE ARMY TO THINK AND GROW — TAKING CHARGE OF THE PROCESS OF CHANGE."**

**GENERAL FREDERICK M. FRANKS, JR.**

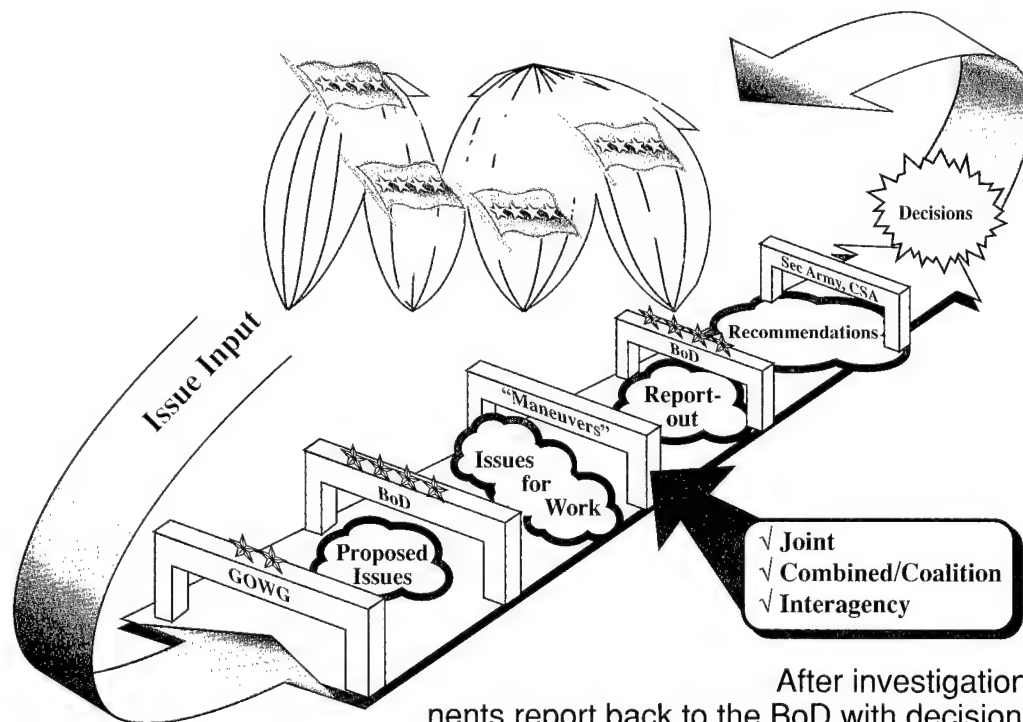


# Strategic Agility in Decision Making

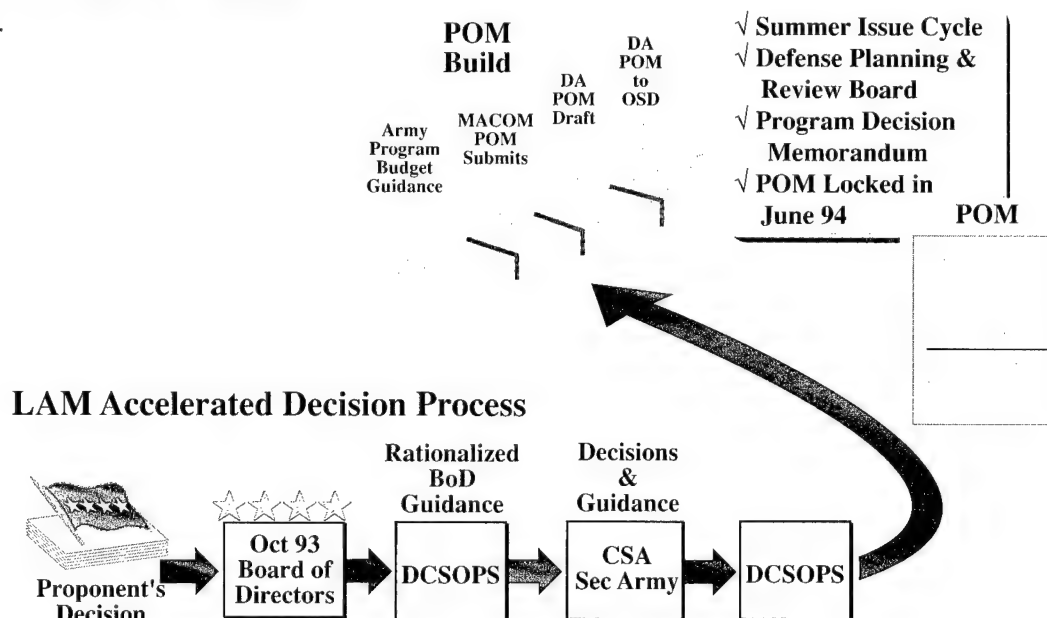


The Louisiana Maneuvers process begins with issue nominations from the field. A General Officer Working Group, made up of Major Generals from the Army's Reserve Components, major Army commands, and the Army Staff, then brainstorms candidate issues for consideration. Of the hundreds of Title 10 and warfighting issues considered, only the most important are passed to the Louisiana Maneuvers Board of Directors (the Army's senior generals) for deliberations.

The Board of Directors (BoD) considers the issues and approves some of them for study. Individual board members take proponency of issues to work them in their commands. As proponents, individual board members supervise the study and evaluation of assigned issues through exercises such as Ulchi Focus Lens in Korea, Fuertes Defensas in Central America, REFORGER in Europe, Prairie Warrior at Fort Leavenworth, Kansas, and the General Headquarters Exercise Armywide. They also use existing simulations and resources such as the Battle and Research Laboratories to examine, explore, observe, and learn. During the course of investigation, issue proponents are assisted by Army Staff sponsors who provide information on studies and projects related to the issue. Further, sponsors suggest programmatic savings and tradeoffs for each option brought to the Board of Directors.

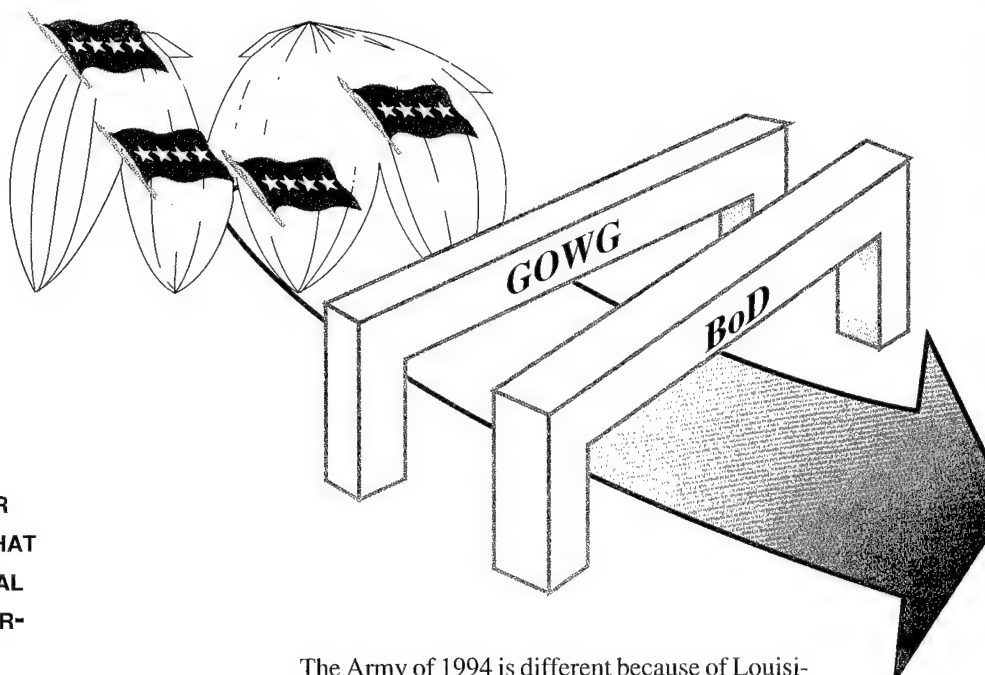


After investigation, issue proponents report back to the BoD with decision packages containing observations, lessons learned, and options. The BoD then offers its own advice and recommendations to the Chief of Staff and Secretary of the Army for decisions on funding and priority. This streamlined process provides the Army's senior leadership strategic agility in decision making by building consensus around the most viable options and allows important decisions to be made in a matter of months instead of years. It ensures a more confident look at resources and expenditures as prioritization and funding decisions are made on capabilities needed to execute the National Military Strategy.



... Shortcutting Cold War Era Decision Methodologies

# Louisiana Maneuvers 1993: The Accomplishments

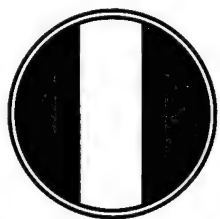


"WE'VE BEEN SUCCESSFUL BEYOND OUR WILDEST DREAMS. I DON'T THINK WE EVER IMAGINED THE DEPTH AND BREADTH OF WHAT COULD HAPPEN WITH LAM WHEN GENERAL SULLIVAN MADE *CHANGE* A SENIOR LEADERSHIP ISSUE."

**GENERAL JIMMY D. ROSS**

The Army of 1994 is different because of Louisiana Maneuvers. The senior leaders now have a mechanism for thinking about the future and determining policy while dealing with today's fiscal and strategic realities. The Army has made great progress in modeling and simulation. We are finding new ways to harness the power of the microprocessor. The Army Staff is exercising and improving the way it allocates scarce resources to execute the National Military Strategy. We have gained tremendous insights in the acquisition process and how it can be streamlined, reducing technical risk, cost, and time from concept to production.

## '93 Issue Proponents



**Training and  
Doctrine Command**



**Army  
Materiel  
Command**



**Forces  
Command**

## '93 Issues

### Warfighting

- ✓ HQ Above Corps/JTF
- ✓ Military Opns w/Unfamiliar Forces
- ✓ Own the Night
- ✓ Battle Command
- ✓ C4I

### Title 10, U.S. Code

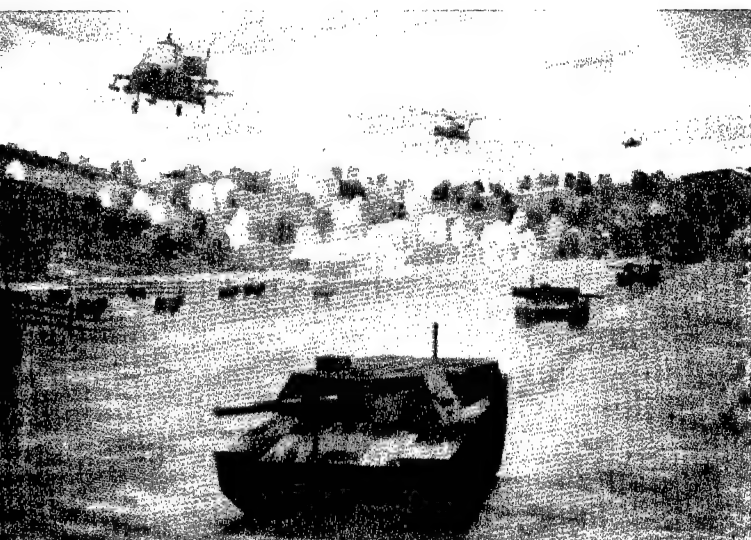
- ✓ Force Structure
- ✓ Equipping the Force
- ✓ Mobilization/Deployment
- ✓ Sustainment

## Early Issues

The first objective of the 1993 Louisiana Maneuvers was to determine the issues to be examined. The Army's senior leaders initially identified about 200 issues and questions for consideration. In September 1992, the first General Officer Working Group (GOWG) met to narrow and refine these issues. Of the 200 issues considered, 20 were presented to the Board of Directors (BoD) at its first meeting in October 1992. The BoD reviewed, modified, and approved warfighting and Title 10 issues for examination in the Louisiana Maneuvers process. Selected board members took proponentcy to study the issues, assisted by Army Staff issue sponsors and the Louisiana Maneuvers Task Force.

## Tools for the 1990s Maneuvers

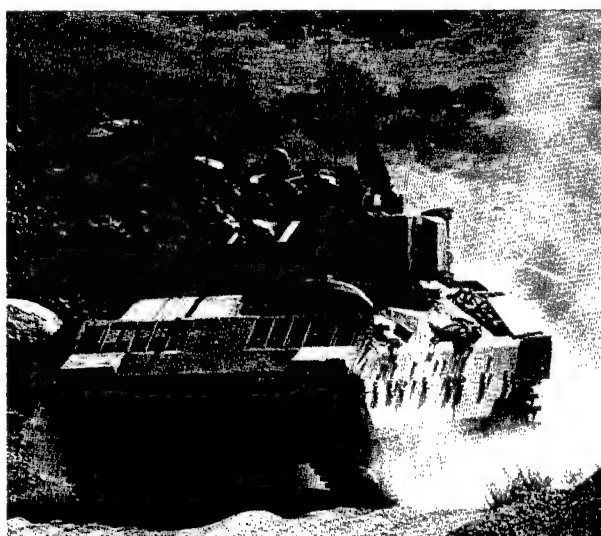
The tools used to investigate issues in the 1990s are very different from the large scale troop exercises used in the 1940s Louisiana Maneuvers. Issue proponents and sponsors developed evaluation plans for the issues, integrating a variety of means to gather data on the subject. These means and investigative "tools" included: historical analysis, interviews and surveys; multiple runs of complex computer simulations; and data collection from field exercises and contingency operations. The most common tools are simulations (virtual, constructive, and live), with the understanding that everything short of actual military operations is simulation.



Virtual simulations -- SIMNET, for example -- provide the capability to get "man-in-the-loop" at the item of equipment level. Originally developed as an alternative to unit field training, SIMNET and other virtual simulations provide low-cost methods of experimenting with new technologies before prototypes are built and field trials begin. Issue proponents seek every possible opportunity to use virtual simulations in their studies.



Constructive simulations -- Corps Battle Simulation (CBS), JANUS, etc. -- provide the context for higher-level exercises that are "man-in-the-loop" at the staff and commander echelons. They have become the tool of choice to replace large soldier and equipment deployments. For example, the Commander-in-Chief, U.S. Army Europe uses constructive simulations today for REFORGER exercises instead of deploying several divisions and supporting troops as was done in the past. They are used in similar ways in Korea and other theaters. Constructive simulations are effective and relatively low-cost tools when compared to manpower intensive field exercises like the 1940s Louisiana Maneuvers and Cold War-era REFORGER exercises. Additionally, they provide greater training opportunities for higher commanders and staffs.





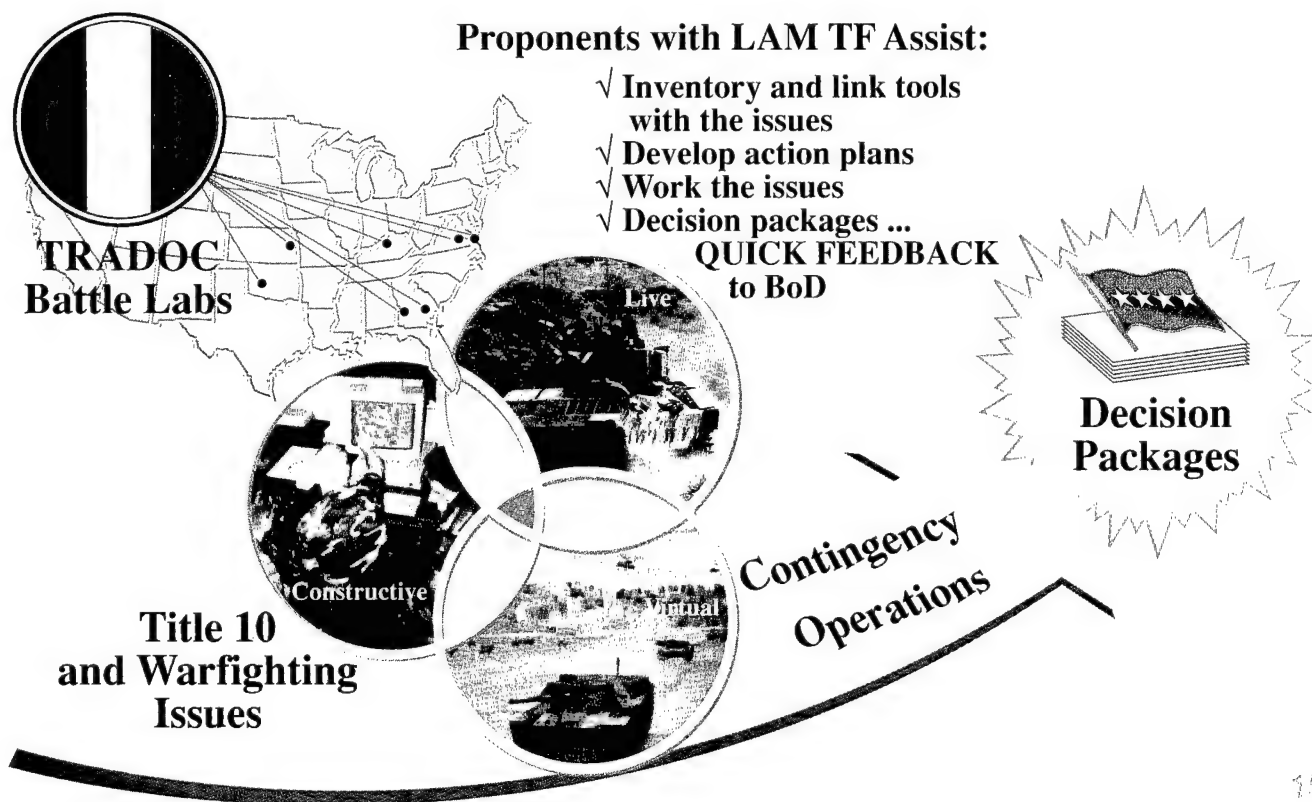
**"BATTLE LABS AND LAM HAVE DEVELOPED INTO AN INNOVATIVE PARTNERSHIP THAT IS GENERATING THE POWER TO DRIVE THE ENGINE OF CHANGE."**

**GENERAL FREDERICK M. FRANKS, JR.**

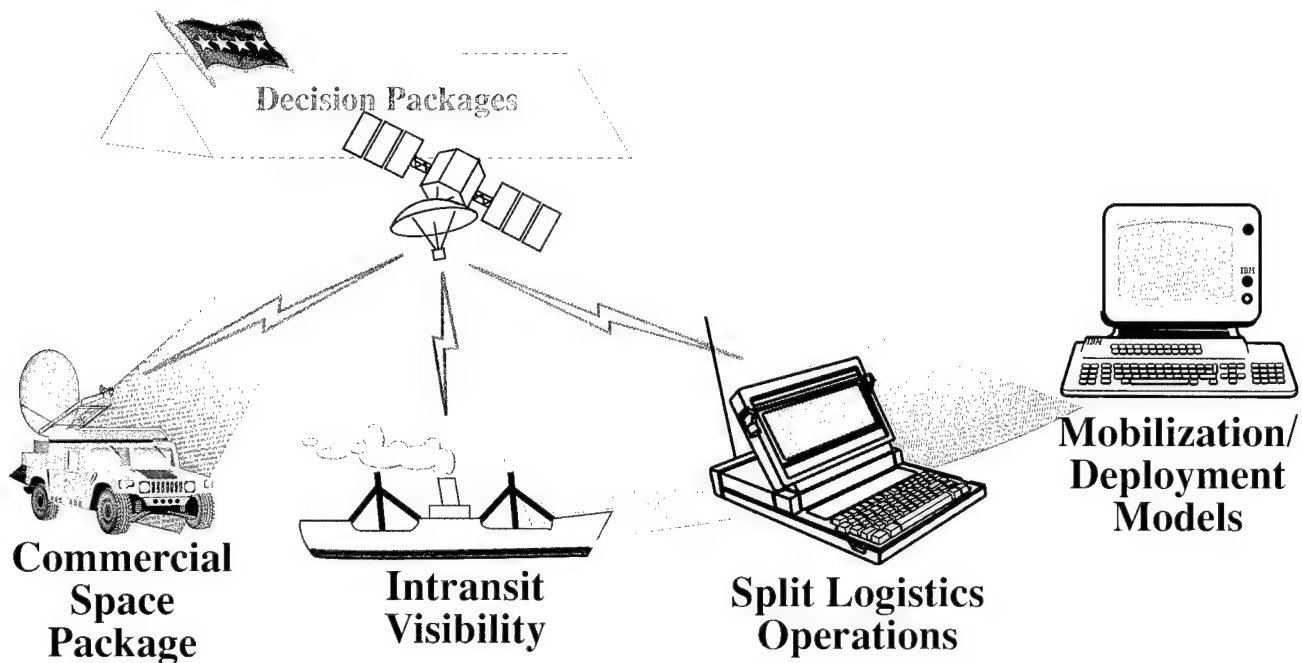
Live Simulations -- Field exercises are still necessary because some important battlefield phenomena cannot be replicated in virtual or constructive simulations, even with current state of the art. The Army's Combat Training Centers, such as the National Training Center at Fort Irwin, California, are highly-instrumented, live simulations developed for training, but our experiences show them to be useful for testing and experimentation as well.

Each issue proponent fashioned an evaluation plan from events using these three simulation tools as well as actual contingency operations. They gathered exercise data from REFORGER, Force Projection Logistics Exercise (FPLX), Prairie Warrior, Fuertes Defensas, and Ulchi Focus Lens, giving the Combatant Commanders direct involvement in Louisiana Maneuvers issue investigations.

In addition, proponents investigated issues with a fresh intellectual framework for future war and operations other than war contained in the new capstone doctrine publication, Field Manual 100-5, Operations. TRADOC Battle Labs provided a means to gain battlefield insights from advanced warfighting demonstrations -- constructive, virtual, and live simulations involving field soldiers and units in tactically competitive environments. SIMNET and other virtual simulations were used extensively in experiments like the Battlefield Synchronization Advanced Warfighting Demonstration and the Joint Precision Strike Demonstration. Live simulations were used to investigate issues like Own The Night and Sustainment.



## Leveraging Results



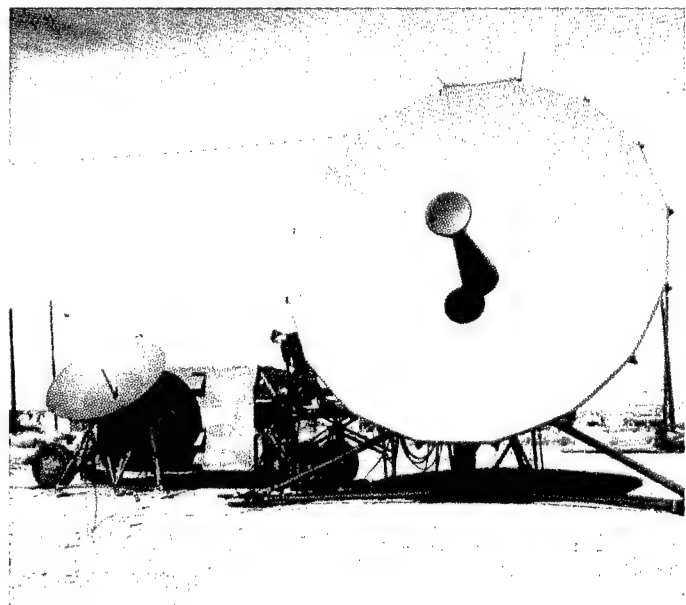
Twelve months after the first issues were selected, the proponents completed their data collection and analysis. The BoD met in October 1993 to hear the recommendations for each issue. The BoD discussed the recommended solutions and agreed that four recommendations merited resourcing in the immediate future:

1. The Commercial Space-Based Package is comprised of commercially-available equipment that will improve command and control of force projection battle-field operations through effective use of space-based systems.

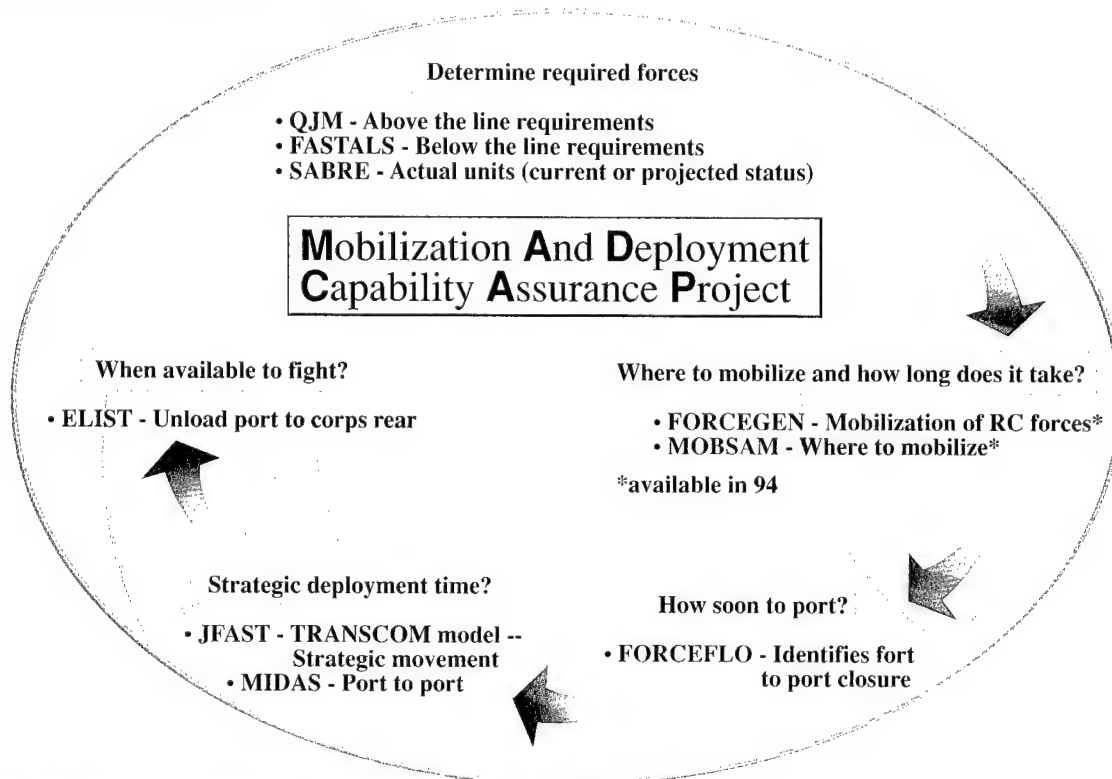
2. In-transit Visibility Equipment for the core Contingency Force Packages. With this equipment, the Army can track movements of every critical item of equipment during unit deployment and sustainment operations. Supplies will get to the right unit at the right time and overall Army inventories will decline because "just-in-time" delivery makes sustainment more effective and efficient.

3. Fly-Away Computer Systems for Split-Based Logistics Operations. In split-based logistics operations, a major portion of the sustainment management force re-

mains in the continental U.S. and supports deployed forces through electronic information exchange. This reduces the size of the combat service support force that must be deployed into a theater and frees scarce transportation assets to move combat forces and supplies.



4. Reserve Component Deployment Modeling by Forces Command. Accelerated development of models like Force Generation Model (FORCEGEN) for mobilization and deployment planning and analysis is essential for improving force projection operations.



In addition to the four resource recommendations, the BoD determined that command and control of CONUS-based forces should be moved into the decision process for Program Objective Memorandum 96-01. The BoD also decided the remaining issue investigations were "on track" and examination will continue in 1994, with subsequent reports back to the BoD.

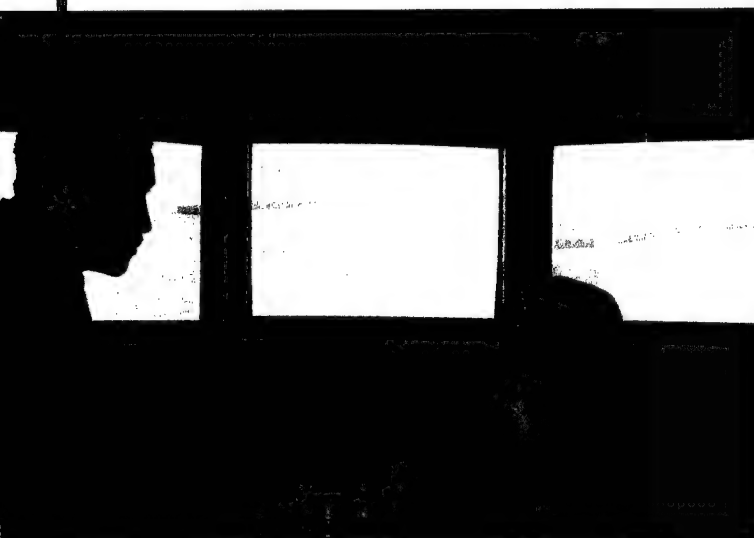
# IMMEDIATE PAYOFF



During its first year, the Louisiana Maneuvers "illuminated" modernization projects that offered high, near-term payoff for the Force Projection Army and served as a forcing function to get available technologies into the hands of soldiers. Through cooperation of commands and agencies across the Department of Defense and industry, we provided state-of-the-art equipment to Army soldiers in Europe and Somalia (without prolonged research, development, test, and evaluation cycles) that enabled them to train on tasks required to execute humanitarian relief and peacekeeping operations. Units received up-to-date maps and terrain databases generated from satellite-based multi-spectral imagery (MSI). Commanders received real-time reconnaissance photographs transmitted digitally through phototelesis equipment.

## Mission Rehearsal

As Army units in Germany began planning for possible deployment to Bosnia, their leaders requested digitized Bosnian terrain databases for their training simulations: Corps Battle Simulation (CBS), Brigade/Battalion Simulation (BBS), Urban Combat Computer Assisted Training System (UCCATS), and SIMNET. Advanced Research Projects Agency (ARPA) and the Topographic Engineering Center (TEC) built terrain databases from satellite imagery and Defense Mapping Agency data. Within 3 months, soldiers in Europe were rehearsing possible operations on simulated Bosnian terrain. The capability was again exercised in October 1993, to create digitized UCCATS terrain for the U.S. Joint Task Force deployed to Somalia.



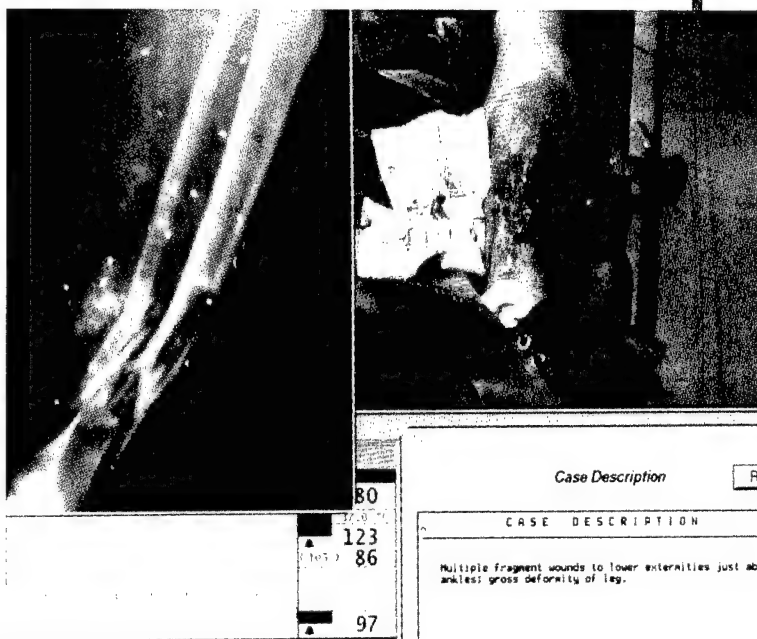


## Digitized Imagery

Prototype equipment that transmits images from crew sights and dedicated photographic equipment over any communications system into command posts gives the commander an accurate picture of the situation in real-time. Prototype equipment was installed on Army Apache helicopters in Europe to support potential peacekeeping operations in Bosnia. The Nightstalker, a prototype reconnaissance vehicle, was deployed to support intelligence gathering in Somalia. This capability evolved from border surveillance vehicles used for counter-drug operations in Texas and California. Nightstalker is a HMMWV with a sensor package atop an elevating mast.

## Telemedicine

First generation telemedicine equipment is being used in field hospitals in Somalia and Croatia. Doctors use the equipment to transmit digital images of difficult or unusual wounds and diseases to specialists at Walter Reed Army Medical Center or the Landstuhl Army Medical Center in Germany. Simultaneous audio links allow field doctors to consult with specialists to ensure patients get top-notch medical treatment without deploying a large hospital staff into the theater.



## Force Tracking

The Army task force commander with UN peace-keeping forces in Macedonia uses force tracking equipment to monitor logistical resupply vehicles and mobile patrols. The equipment records the movements of any vehicle or container moving in strategic, operational, or tactical environments at user-defined time intervals.



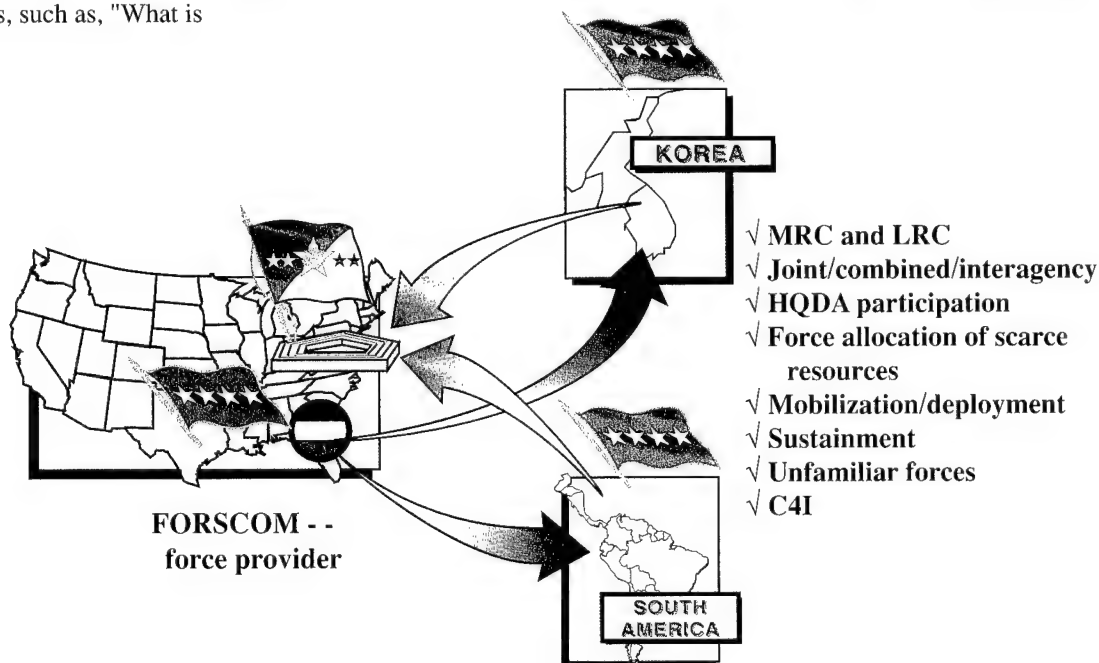
## General Headquarters Exercise 1993

The General Headquarters exercises (GHQx) are designed to stress the Army staff and to examine the Army's ability to allocate scarce resources and perform its Title 10 responsibilities -- to man, organize, equip, train, and sustain the forces provided to Combatant Commanders. While the Army staff is no longer a General Headquarters, the intent is to leverage the intellectual underpinnings and build on the Marshall legacy of the 1940s maneuvers. As the Army downsizes, the available resources to accomplish those responsibilities are decreasing. The exercise forced the Army staff to resource, synchronize, and maintain visibility of scarce assets in two regional contingencies, as required by the National Military Strategy. Also, it identified key questions that must be addressed for the Army to maintain an effective dialogue with the Joint Staff and the unified commands. These questions, such as, "What is

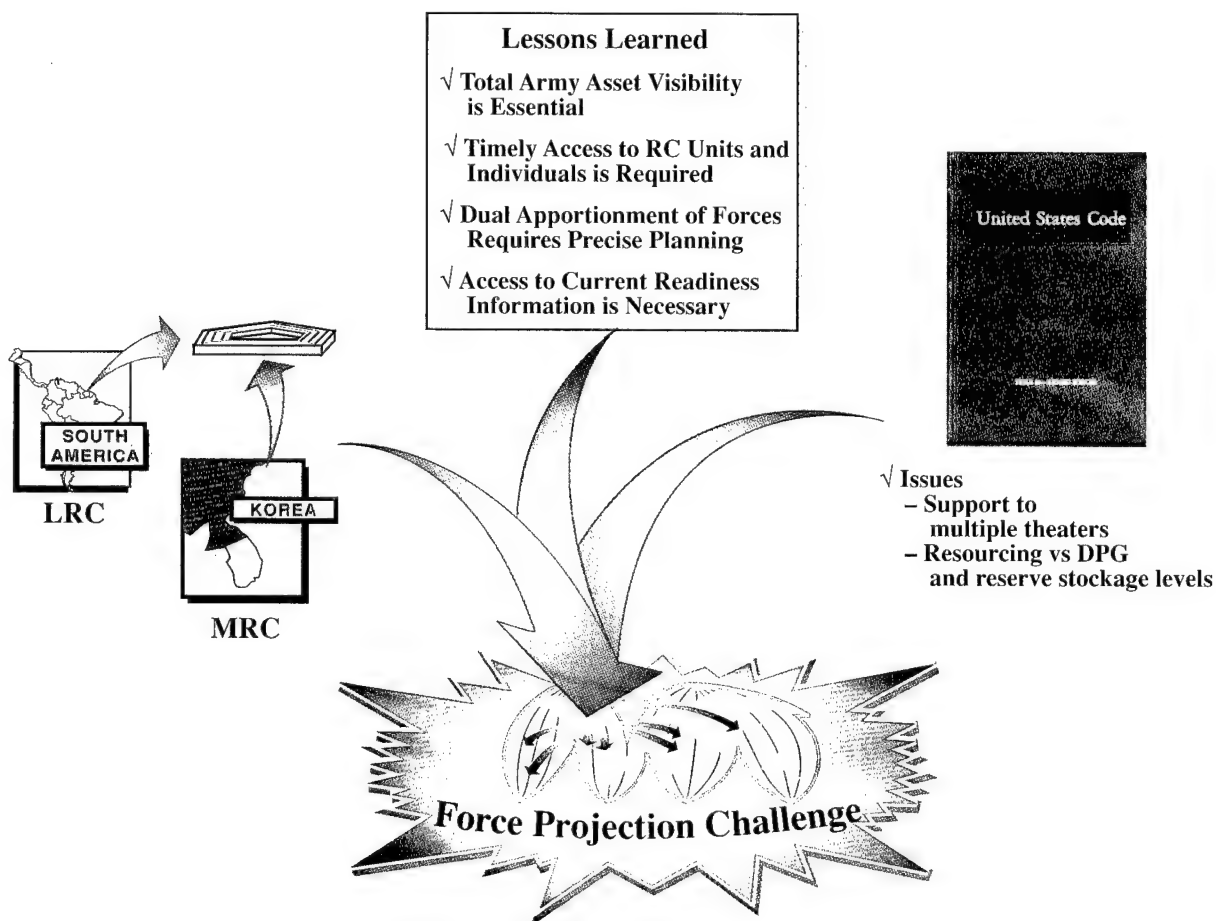


the Army's role in supporting a Combatant Commander's course of action development?" will be examined in GHQx 94.

To create the environment that would force the Army Staff to look "in two directions" at two nearly simultaneous contingencies, we scheduled GHQx 93 to coincide with Exercise Fuertes Defensas in Central America and Ulchi Focus Lens, the annual JCS/coalition exercise in Korea. The Army's Crisis Action Team was activated and solved mobilization, deployment, and sustainment problems generated by events and operations in both theaters. To improve the realism of the exercise, Army forces and equipment committed in support of ongoing operations were excluded from the resources available to the Army staff for contingency missions.







GHQx 93 was a proof-of-principle event -- a "warm-up" for a broader exercise in 1994. The exercise proved its effectiveness as a tool to examine the Army's capability to perform Title 10 responsibilities in a multi-theater, force projection environment. We validated the requirement for total Army visibility -- people and equipment -- on a daily basis. The exercise confirmed the Army's requirement for early access to selected Reserve Component units and individuals and the limitations experienced when the Presidential Selected Reserve Call-up (PSRC) is delayed. We concluded that we must continue our efforts to modify PSRC through legislative action. The Army also began to understand the serious difficulties that arise when scarce resources must be allocated to two contingency plans that are executed nearly simultaneously. Other problems in the mobilization and deployment planning and execution process were found. Potential solutions to these problems are being developed and we will examine these solutions in future exercises.

**"THE GENERAL HEADQUARTERS EXERCISES INCREASE OUR READINESS TO SUPPORT THEATER CINCS."**

**GENERAL DENNIS J. REIMER**

## Board of Directors Meetings

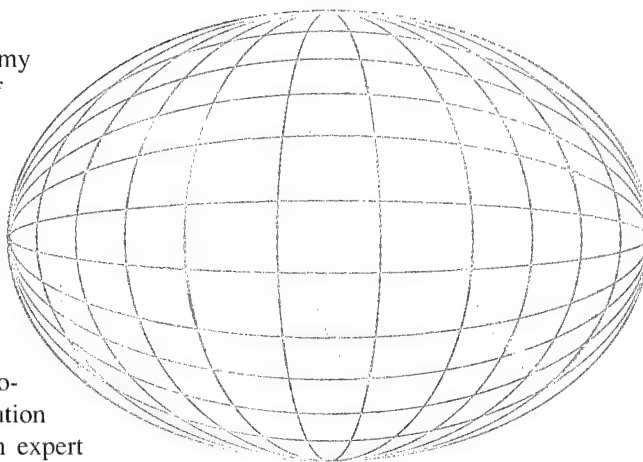
The meetings of the Louisiana Maneuvers Board of Directors are opportunities for the Army's senior leaders to discuss the requirements of a trained and ready Army. Discussions are framed by briefings on new issues and on the evaluation of assigned issues. The BoD members combine their perspectives in their current positions with a broader concern for the Army's future. The meetings institutionalize and structure dialogue about changing systems and growing the Army into the 21st Century.



In March and October 1993, the BoD examined and discussed digitization of the battlefield and an alternative process for equipment acquisition. Both projects have an important impact on the Army in the near and distant future. Digitizing the battlefield will increase the "situational awareness" of soldiers, from the force commander down to the lead scout, creating a common, real-time picture of the battlefield. Horizontal integration of the enabling technologies will substantially enhance the performance of our current systems. To take advantage of emerging technologies, our acquisition systems must become more agile.

## Battlefield Digitization

Battlefield digitization is an Army modernization effort taking advantage of revolutions in electronics and information technologies to make dramatic gains in all battlefield operating systems and at every level, from crews and squads up to the National Command Authority. Digitization of the battlefield means using high-speed streams of information bit-packets, moving across electronic grids, rapidly processing these packets with high resolution graphical displays and assistance from expert systems, and utilizing automated decision support systems to solve complex problems at all levels.



During 1993, through experiments conducted by Battle Labs with connectivity to the Louisiana Maneuvers process, the Army experimented with many procedures, protocols, and pieces of equipment to digitize the battlefield. At the National Training Center, we evaluated the Inter-Vehicular Information System (IVIS), which greatly improves command and control at tactical levels for mechanized forces. With IVIS, all crews in a task force received orders, graphics, current intelligence, and friendly locations over tactical radio in digital bursts in real-time, as soon as the information was available.

Army units tested improved night vision equipment, based on second generation forward-looking infrared (FLIR) technology, that substantially enhances our current capability in limited visibility. Fielded across all combat, combat support, and combat service support elements, second generation FLIR will significantly reduce risk of fratricide and improve a soldier's ability to operate in bad weather or at night.

The synergistic combination of IVIS and second generation FLIR creates a quantum leap in force lethality and survivability. They enable battlefield synchronization, point-of-engagement target identification, a common battlespace picture, and heightened situational awareness at the tactical level. They begin to clear the "fog of war."

At higher levels, experiments occurred with split-based logistics operations that relied primarily on digitized communications and computer processing, medical teleconsultation, and videoteleconferencing of command and control that depended on broadband satellite links and digitized imagery supporting intelligence-gathering in operations other than war (e.g., counternarcotics, peacekeeping, and humanitarian relief). Experiments with battlefield digitization showed that state-of-the-art information technology makes an enormous contribution to the challenge of maintaining land force dominance and achieving decisive victory. It is a primary means by which we can grow smaller, yet more capable, to remain the strategic core of our joint warfighting capability.

**"FEW WOULD ARGUE THAT THE MILITARY COMMANDER AT ANY LEVEL OF COMMAND WHO HAS A NEAR PERFECT PICTURE OF BOTH ENEMY AND FRIENDLY BATTLEFIELD DISPOSITIONS, WHILE HIS OPPONENT LACKS SUCH A PICTURE, HAS A NEARLY INSURMOUNTABLE ADVANTAGE."**

**GENERAL (RET) GLENN K. OTIS**

## Changes in Acquisition

The acquisition process that served the Army so well in past years was designed for Industrial Age technological development. In that age, modernization usually meant bigger, faster, or more powerful weapons and equipment. Technology development was relatively stable and its effects predictable. The penalties for making a bad acquisition decision were severe, given the technology developments of our potential adversaries. The Industrial Age is giving way to the Information Age. Information Age technology will increase our understanding of the battlefield, making our soldiers and equipment more effective.

Today and in the future, the Army's acquisition system must adjust to new realities -- diverse and unpredictable threats, a broader range of missions for Army forces, and technology development with a half-life measured in months, not years. The pace of technology development is accelerating at an incredible rate. The primary challenge is to stay close to the state of the art in important technologies and to enhance our current equipment -- the world's best -- with information technology. The risks of falling behind the state of the art is much greater than the risk of achieving only a near-perfect acquisition.

The key to achieving earlier and greater soldier feedback in the system acquisition process is harnessing the power of the microprocessor. Computers and image generators, built around modern microprocessors, drive the simulators and simulations that are emerging as critical components of a more agile and responsive acquisition process. We saw the power of these tools, in an integrated system, at two Association of the U.S. Army (AUSA) events in 1993.

An initial concept was demonstrated in May at the AUSA Louisiana Maneuvers Symposium in Orlando, Florida. It included a large Army demonstration of the "Concept to Production" process. Conceived, designed, and executed by the AMC and TRADOC, it consisted of 11

**"TO TAKE ADVANTAGE OF WHAT'S HAPPENING IN COMMERCIAL INDUSTRY, WE HAVE TO REMOVE THE BARRIERS WHICH ISOLATE US FROM COMMERCIAL INDUSTRY . . . TO REMOVE THESE BARRIERS AMOUNTS TO A MAJOR REFORM OF THE DEFENSE ACQUISITION SYSTEM."**

**WILLIAM J. PERRY**

**"THE FOUNDATION OF THE ACQUISITION PROCESS, THE OPERATIONAL REQUIREMENT AND ITS TRANSLATION INTO SYSTEM TERMS, CAN BE IMPROVED THROUGH THE USE OF MODELING AND SIMULATION . . . ACCOUNTING FOR HUMAN PERFORMANCE EARLY IN SYSTEM ACQUISITION IMPROVES SYSTEM CAPABILITY AND ENHANCES THE TEST AND EVALUATION PROCESS TO PREDICT OPERATIONAL PERFORMANCE."**

**DEFENSE SCIENCE BOARD**

stations where simulators and simulations were integrated into the Department of Defense acquisition process, from concept formulation through system production.

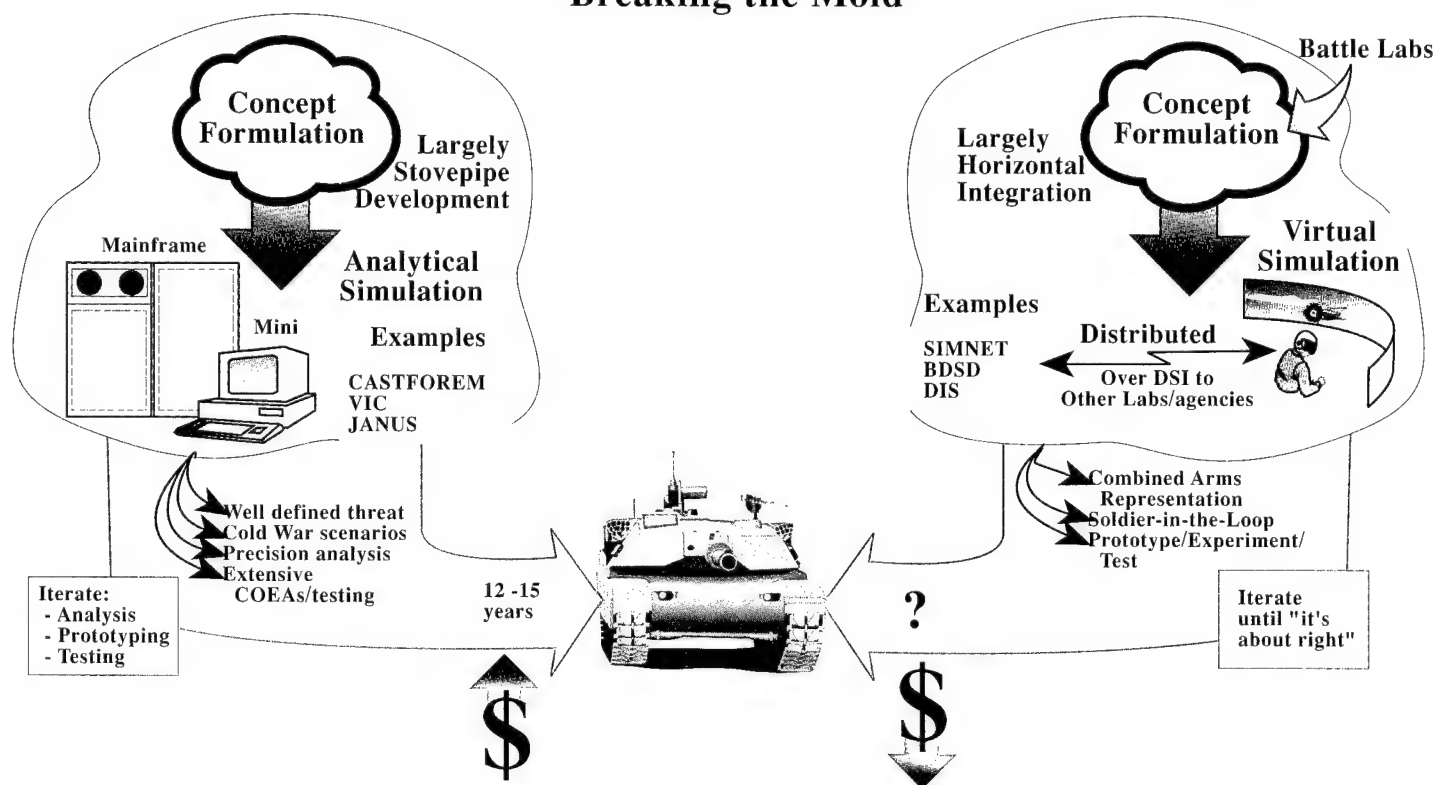
We saw the enormous potential of the synthetic battlefield in two live symposium events. In the Dissimilar Fidelity Simulation demonstration, geographically dispersed simulators of differing fidelity were connected on the same virtual battlefield. As pilots learned how to fly and fight a new system in a combined arms force, engineers examined its technical performance. In the Seamless Simulation demonstration, simulators in Orlando interacted on the virtual battlefield with actual vehicles on Saint Vith Range at Fort Knox, Kentucky, demonstrating an Army capability to evaluate the mix of new systems with existing equipment in an operational environment.

The concept was refined and again demonstrated at the October AUSA General Membership meeting in Washington, DC. It integrated a broader, experiential-

## Current Method

## "Breaking the Mold"

## What We Need



based requirements definition process, oriented on the TRADOC Battle Labs, and used simulations/simulators in developmental and operational testing with the demonstration stages from the Orlando symposium.

The innovation and interactivity of the demonstration stimulated extraordinary interest from attendees, including Congressional staff members and senior leaders from Department of Defense, Department of Army, and civilian industry. It became the springboard for intense discussion and actions to reengineer the acquisition process and use the emerging power of computers in every possible phase of the process.

Simulators and simulations are helping us infuse agility and responsiveness in the acquisition process and are primary tools of the Louisiana Maneuvers process. In the past year, we found new ways to use these tools for operational planning and mission rehearsals, for doctrine and materiel development, and are expanding their use in training and leader development. As Army resources decline, simulation technology will help us maintain readiness for today's challenges and will provide the means for modernizing with assurance that our resources are used

effectively. The Louisiana Maneuvers process is focusing the efforts of commands and agencies across the Army to use simulations to leverage emerging technology to maximum advantage, moving us confidently into the 21st Century.

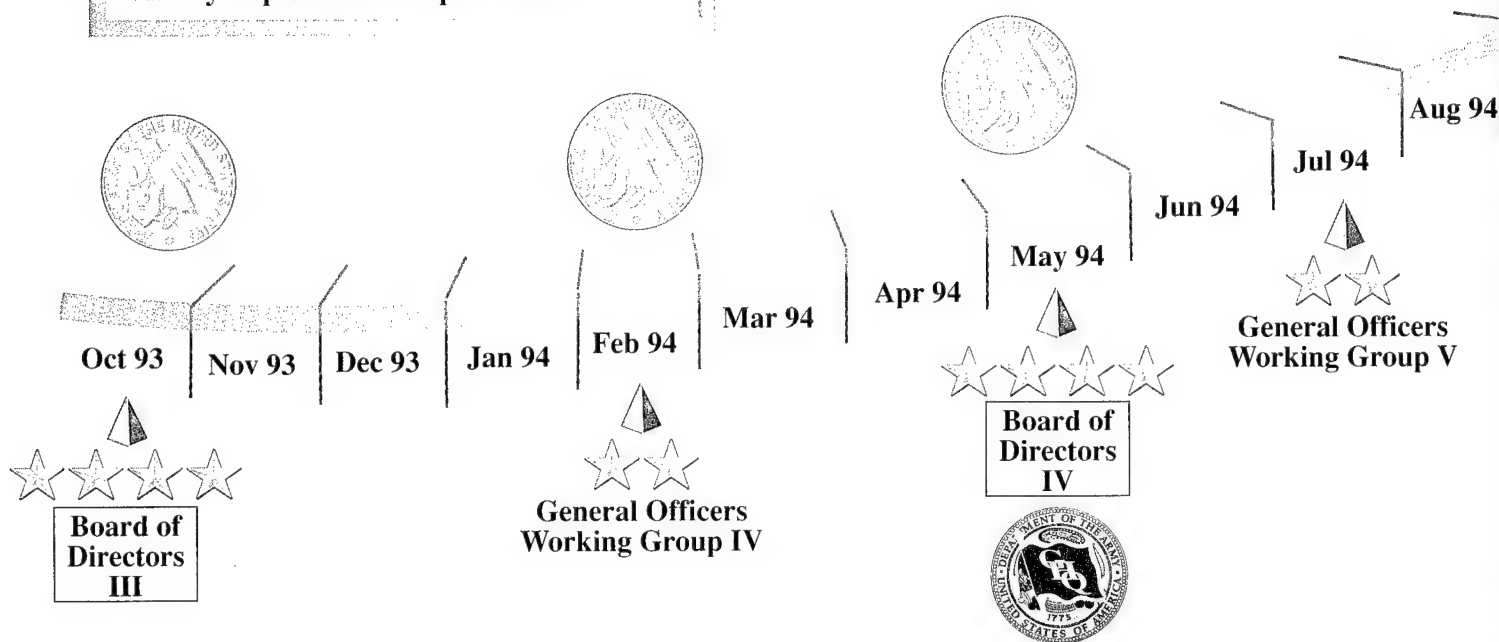
**"... THE COLD WAR ACQUISITION SYSTEM . . . SERVED US WELL, BUT IT IS INAPPROPRIATE TO THE CURRENT THREAT, TECHNOLOGICAL, AND RESOURCE ENVIRONMENTS. IT IS A VERY LINEAR SYSTEM OF DISCRETE LITTLE BOXES. WHAT WE NOW REQUIRE IS A NONLINEAR SYSTEM -- A SYSTEM OF CONNECTIVITY, NOT BOXES."**

**GENERAL GORDON R. SULLIVAN**

# The Road Ahead -- 1994 and Beyond

## '94 Issues:

- ✓ Holistic Review of C4I
- ✓ Continuous Operations
- ✓ New Technologies
- ✓ Sustainment
- ✓ Lighter, Smaller, More Deployable Forces
- ✓ Weapons of Mass Destruction
- ✓ Force Structure for Force Projection
- ✓ Army Exploitation of Space Assets



Following our success in 1993, Louisiana Maneuvers will continue moving out in 1994 and beyond. We seek ways to strengthen our capability and take every opportunity to exploit the power of microprocessors in our examinations of the 1994 Louisiana Maneuvers issues.

The centerpiece of our 1994 investigations is the four phased General Headquarters Exercise (GHQx). Through the GHQx we seek better ways to generate and deploy the right forces in support of our Combatant Commanders. We are orienting on low-cost, high-payoff technology applications for modernizing and improving the force, making it lighter, smaller, and more lethal.

Not part of the GHQx, but a key element of our plan is an Advanced Warfighting Demonstration at the

National Training Center in April 1994. It will highlight the warfighting potential of a digitized task force in tactical operations employing tanks, infantry fighting vehicles, artillery systems, attack helicopters, and a prototype battle command vehicle, all linked digitally. This warfighting demonstration will offer insights into ways we can increase lethality, survivability, and the tempo of operations by integrating Information Age technology horizontally across the force. It will be our foundation as we move toward digitizing a full combat division before the end of the decade.

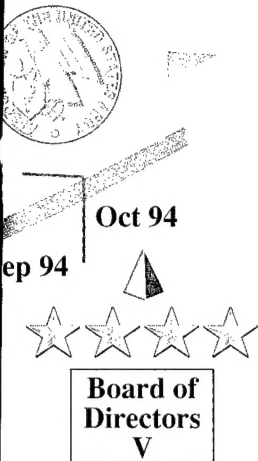
Our capability to exploit the advantages of space and space-based platforms will grow in 1994 and beyond. We will experiment with the doctrinal implications of and



**"WITH THE FOCUS OF  
LOUISIANA MANEUVERS...  
WE ARE ABOUT TO LINK, IN A  
PRACTICAL SENSE, COMMAND AND  
STAFF TRAINING, LIVE FIELD  
TRAINING, AND EXERCISES WITH  
SIMULATORS INTO A SEAMLESS  
WHOLE."**

**GENERAL DAVID M. MADDOX**

**'95 ...**



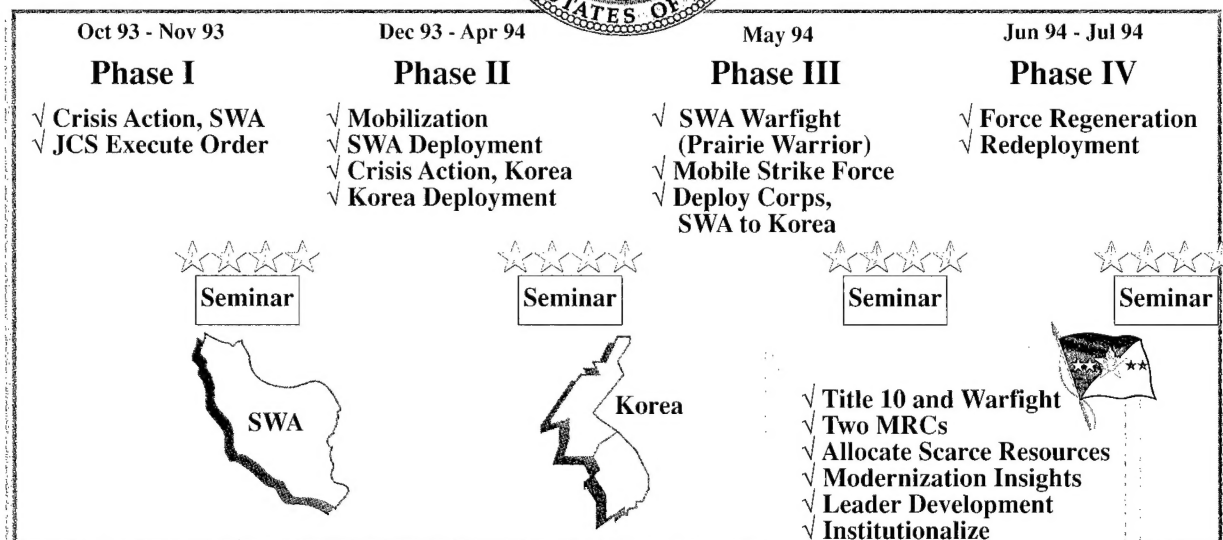
conceptual requirements for space platforms in Northern Lights, an exercise with Australian, British, and Canadian allies, and in Ulchi Focus Lens. These experiments will be the basis for space investment strategies and will be included in the Army Modernization Plan. We are institutionalizing space concepts and capabilities into the mainstream of the Army by integrating them into the Command and General Staff College wargaming exercise, Prairie Warrior --a key component of GHQx. This constructive wargaming exercise will allow experimentation with new capabilities still in the concept development phase, providing insights to insure the industrial base can produce such capabilities.

We are investing in advanced technology to integrate and link systems, models, and simulations to help commanders visualize mobilization, deployment, sustainment, and redeployment. At the end of 1994, we will see an initial return on our investment in

the Total Distribution Advanced Technology Demonstration, a component of Total Asset Visibility.

We will continue to seek ways to streamline the acquisition process, enabling us to provide rapid development and procurement of critically needed capabilities, or rapid acquisition of commercially available capabilities. Experts in acquisition and simulation are jointly examining the process and formalizing recommendations for improvement.

Throughout the year, Army senior leaders will meet and evaluate progress. Louisiana Maneuvers will have an even greater impact in 1994 as momentum builds, understanding grows, and consensus expands. Change is psychologically threatening, but Louisiana Maneuvers is a positive force, stimulating us intellectually. Intellectual change leads physical change. How you think about the future determines what you think and what you do. Louisiana Maneuvers is our process to think about the future, and because of it, America's Army is ready for challenges today and tomorrow, and growing into the 21st Century.



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# CAMPAIGN TO THE 21ST CENTURY

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Moving from the Cold War, the Army is advancing along several axes in order to get to the Army of the 21st Century. Louisiana Maneuvers and Battlefield Laboratories are the covering force leading the Army into the future.

America's Army is now and will be a seamless force of Active and Reserve Components and Department of the Army civilians. It is trained and ready to fight; serving the Nation at home and abroad...a strategic force capable of decisive victory into the 21st Century. We have changed how we are organized, how we train, and how we integrate the components to provide trained and ready forces to the Combatant Commanders. There are no "time outs" from readiness. We will not allow change and growth to interrupt either our ability or our readiness for combat operations tomorrow, next month, or next year. We will not lose our focus on training, the glue that keeps us ready to tailor and generate forces, project them around the globe, and sustain them in a joint/combined operation.

The Army is reshaping the force with fewer resources, leading to a leaner, more lethal, more efficient team that achieves growth in capability through focused modernization of existing weapons systems and formidable new doctrine. We must be the best possible stewards of our resources. That does not mean doing more with less; it does mean finding new ways of doing business that enable us to focus declining resources on the essence of our warfighting business.

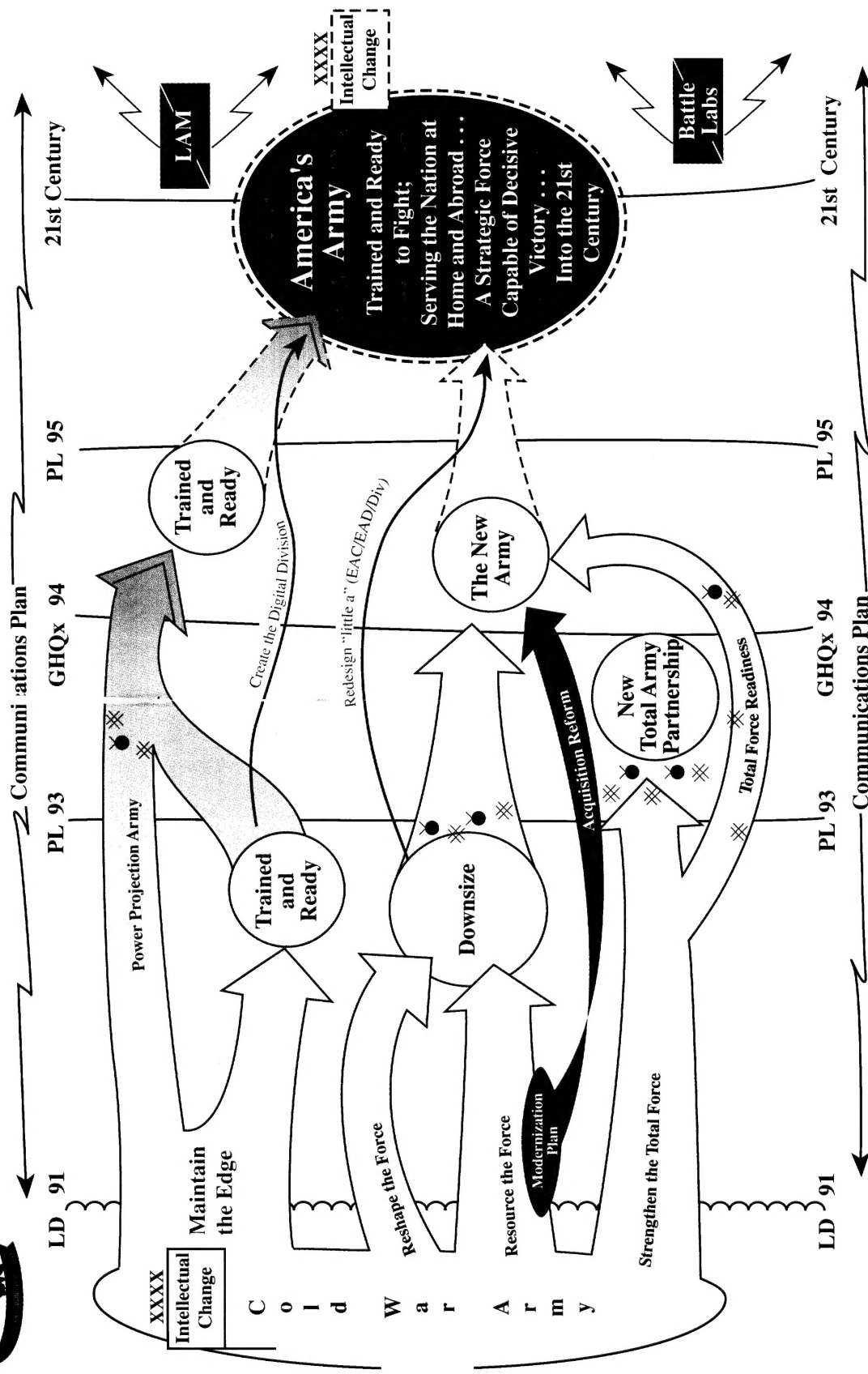
America's Army is a dynamic partnership that includes the active Army, the National Guard, the United States Army Reserve, and Department of the Army civilians. It encompasses our family members, our alumni, and our partners in industry...all of us are stakeholders in this great campaign. We have all made a commitment to work together to achieve our vision.

Our Army will continue to change as our world changes. Undoubtedly, tomorrow's missions will present new challenges. Nevertheless, we must remain focused on our most important mission -- to fight and win our Nation's wars. America's Army, the premier land force in the world, stands ready to deliver decisive victory on the battlefield, in the laboratory, in the local community, at home or abroad!

America's Army has led our country through change throughout our history. As we move into the next century, we know where we are going and are focusing the forces of change so that we remain trained and ready to serve. We have a relevant vision and are striving to synchronize the disparate aspects of change...downsizing and modernizing in a dynamic strategic environment with declining resources.



# Campaign to the 21st Century



"OUR ARMY IS THE PREMIER LAND FORCE IN THE WORLD; I INTEND FOR IT TO REMAIN SO. THE LOUISIANA MANEUVERS PROCESS PROVIDES THE CRITICAL INTELLECTUAL IMPETUS REQUIRED TO ORIENT OUR ARMY ON THE 21ST CENTURY. WE WILL BE SUCCESSFUL IN THIS ENDEAVOR BECAUSE WE MUST . . . AND BECAUSE THE AMERICAN PEOPLE EXPECT IT."

TOGO D. WEST, JR.



"THE ESSENCE OF LOUISIANA MANEUVERS IS LEADERS COMING TOGETHER AT ALL LEVELS TO TRANSFORM OUR ARMY; TO MOVE IT INTO THE FUTURE AS A POWER PROJECTION FORCE FOR TODAY AND TOMORROW. WE ARE SUCCESSFUL IN MEETING THE CHALLENGES OF THE FUTURE BECAUSE OF THE STRENGTH OF OUR COMMITMENT AND THE SOLID FOUNDATION FOR FOCUSING THE FORCES OF CHANGE. WE MUST ADAPT TO THAT CHANGE AND LOUISIANA MANEUVERS IS HELPING AMERICA'S ARMY GROW INTO THE 21ST CENTURY."

GENERAL GORDON R. SULLIVAN